

1 TR 2 833 604

(6.)

2004-074197/08 RHODIANYL SNC 2001.12.17 2001-016322(+2001FR-016322) (2003.06.20) C08L 77/06, C08G 69/06, C08J 5/18 (C08L, 77/06, 77.00)	A23F01 RHOD 2001.12.17 *FR 2833604-A1 A(5-F1E) F(1-D3)
Polymer composition used for injection molding contains a thermoplastic polymer matrix and a rheology modifier comprising a functionalized, hyperbranched copolyamide C2004-030577 Addl. Data: VARLET J, CLEMENT F, TOURAUD F, ROCHAT S, SCHERBAKOFF N, SASSI J F 2002.01.17 2002FR-000545	R²: ARB _f (I) AR'B' (II) R'(B'') _n (III) R ² A'' (IV) A, A', A'', B, B' and B'' = reactive groups; R and R' = hydrocarbon group; f = at least 2, preferably 2-10; R ¹ and R ² = hydrocarbon group; and n = at least 1, preferably 1-100.
NOVELTY Polymer composition contains a rheology modifier comprising a functionalized, hyperbranched copolyamide obtained by reacting a monomer(s), optionally a spacing monomer, optionally a core monomer and a chain limiting monomer(s)	USE For producing articles by molding, injection molding or extrusion to give threads, fibers, films and filaments (all claimed).
DETAILED DESCRIPTION Polymer composition comprises a thermoplastic polymer matrix and a rheology modifier comprising a functionalized, hyperbranched copolyamide obtained by reacting a monomer(s) of formula (I), optionally a spacing monomer of formula (II), optionally a core	ADVANTAGE The fluidity, transparency and mechanical properties, particularly

impact resistance, are good.

SPECIFIC COMPOUNDS

Preferred Materials: In the hyperbranched copolyamide, (I) is 5-aminoisophthalic acid, 6-aminoundecanoic acid, 3-aminopipelic acid, aspartic acid, 3,4-diaminobenzoic acid and/or 3,5-diaminobenzoic acid, (II) is η -caprolactam, aminocaproic acid, p - or m -aminobenzoic acid, amino-11-undecanoic acid, lauryl lactam or its aminoacid and/or amino-12-dodecanoic acid, (III) is 1,3,5-benzene tricarboxylic acid, 2,2,6,6-tetra-(beta-carboxyethyl)cyclohexanone, 2,4,6-tri-(aminocaproic acid)-1,3,5-triazine and/or 4-aminomethyl-1,8-octanediamine and (IV) is n-hexadecylamine, n-octadecylamine, n-dodecylamine and/or benzylamine (claimed).

EXAMPLE

Polyamide 66 mixed with 5 (0) % hyperbranched copolyamide prepared from 1:6:6:9 tricarboxylic or trimesic benzene acid, 5-aminoisophthalic acid, η -caprolactam and n-hexadecylamine had a pack pressure of 25.5 (35.4) bar.

TECHNOLOGY FOCUS

Polymers - Preferred Materials: The matrix is preferably nylon 6,

nylon 66, nylon 4, nylon 11, nylon 2, polyamide 4,6, 6-10, 6-36, 12-12 and/or their copolymers (claimed). Preferred Composition The composition contains 0.1-50, especially 210 wt. % hyperbranched copolyamide (claimed). (36pp2522DwgNo.0/3)